

Claims:

1. A targeted oligonucleotide construct comprising:

- a targeting moiety which localizes to a site in an organism;
- an oligonucleotide complementary to a nucleic acid of interest; and
- a detectable label.

2. A targeted oligonucleotide construct as in claim 1, wherein the targeting moiety is selected from a lipid, an antibody, a lectin, a ligand, a sugar, a steroid, a hormone, a nutrient, and a protein.

3. A targeted oligonucleotide construct as in claim 1, wherein the detectable label is selected from a chemiluminescent label, a radioisotope, a fluorescent label, a paramagnetic contrast agent, and a metal chelate.

4. A targeted oligonucleotide construct as in claim 1, wherein the oligonucleotide is selected from an antisense oligonucleotide and an antisense oligonucleotide analog.

5. A targeted oligonucleotide construct as in claim 1, wherein the detectable label and the targeting moiety are coupled to the oligonucleotide.

6. A targeted oligonucleotide construct as in claim 1, wherein the oligonucleotide and the detectable label are coupled to the targeting moiety.

7. A targeted oligonucleotide construct as in claim 1, wherein the targeting moiety and the oligonucleotide are coupled to the detectable label.

8. A targeted oligonucleotide conjugate comprising:

- a targeting moiety which localizes to a site in an organism;

an oligonucleotide complementary to a nucleic acid of interest, and  
a therapeutic agent.

9. A targeted oligonucleotide construct as in claim 8, wherein the targeting moiety is selected from a lipid, an antibody, a lectin, a ligand, a sugar, a steroid, a hormone, a nutrient, and a protein.

10. A targeted oligonucleotide construct as in claim 8, wherein the therapeutic agent is selected from an enzyme, an enzyme inhibitor, a receptor ligand, a radioisotope, an antibiotic, a steroid, a hormone, a polypeptide, a glycopeptide, a phospholipid, and a drug.

11. A targeted oligonucleotide construct as in claim 8, wherein the oligonucleotide is selected from an antisense oligonucleotide and an antisense oligonucleotide analog.

12. A targeted oligonucleotide construct as in claim 8, wherein the therapeutic agent and the targeting moiety are coupled to the oligonucleotide. *both* ?

13. A targeted oligonucleotide construct as in claim 8, wherein the oligonucleotide and the therapeutic agent are coupled to the targeting moiety. // ?

14. A targeted oligonucleotide construct as in claim 8, wherein the targeting moiety and the oligonucleotide are coupled to the therapeutic agent. ?

15. A method for preparing a targeted oligonucleotide construct, comprising:

forming a conjugate by connecting a targeting moiety which localizes to a site in an organism to an oligonucleotide complementary to a nucleic acid of interest; and  
connecting a detectable label to the conjugate.

16. A method for preparing a targeted oligonucleotide construct, comprising:

forming a conjugate by connecting a targeting moiety which localizes to a site in an organism to a detectable label; and

connecting to the conjugate an oligonucleotide complementary to a nucleic acid of interest.

17. A method for preparing a targeted oligonucleotide construct, comprising:

forming a conjugate by connecting a detectable label to an oligonucleotide complementary to a nucleic acid of interest; and

connecting to the conjugate a targeting moiety which localizes to a site in an organism.

18. A method for preparing a targeted oligonucleotide construct, comprising:

forming a conjugate by connecting a targeting moiety which localizes to a site in an organism to an oligonucleotide complementary to a nucleic acid of interest; and

connecting a therapeutic agent to the conjugate.

19. A method for preparing a targeted oligonucleotide construct, comprising:

forming a conjugate by connecting a targeting moiety which localizes to a site in an organism to a therapeutic agent; and

connecting to the conjugate an oligonucleotide complementary to a nucleic acid of interest.

20. A method for preparing a targeted oligonucleotide construct, comprising:

forming a conjugate by connecting a therapeutic agent to an oligonucleotide complementary to a nucleic acid of interest; and

connecting to the conjugate a targeting moiety which localizes to a site in an organism.

21. A method for introducing a targeted oligonucleotide construct of claim 1 into a cell, comprising contacting a cell with a targeted oligonucleotide of claim 1, such that the targeted oligonucleotide is introduced into the cell.

22. The method of claim 21, wherein the cell is *in vitro*.
23. A method for treating a physiological condition in a patient, comprising administering an amount of a targeted construct of claim 8 sufficient to treat the physiological condition.
24. A method for imaging a physiological condition in a subject, comprising:  
administering to the subject a targeted construct of claim 1; and  
detecting the label in the patient.

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